



XTEND 900 MHZ WIRELESS MODEM
For use with VEEDER-ROOT EMR³ DATALINK
INSTALLATION INSTRUCTIONS
Manual 577013-859, Rev. B



INTRODUCTION

This Installation Guide Contains the necessary information to Connect the Wireless Modems to the EMR³ Interconnect Box and the Office Computer for running the EMR³ Datalink Program. For Specific Instructions on Running the Program itself, Refer to the Program Manual that is included on the Software Disk and the Quick Start Guide that is included with the Office Kit.

THE INSTALLATION INSTRUCTION VARY BY MODEM TYPE – FOLLOW THE INSTRUCTIONS FOR THE SPECIFIC MODEM YOU HAVE.

DESCRIPTION:

The Wireless Kits come in three types:

Kit Number	Description	General Contents and Comments
0846000-030	Office Kit - XTend 900 MHZ - Americas	The office kit includes: ⌘ Wireless USB modem with standard antenna, ⌘ Regular USB Cable for connecting the modem to the office PC, ⌘ Quick Start Guide, ⌘ Installation Guide ⌘ Program Disc. The Program Disc includes the USB Drivers and the full Program Manual as a .pdf file.
0846000-031	Truck Kit with Keypad - XTend 900 MHZ - Americas	The Truck Kit with Keypad includes: ⌘ Wireless modem with standard antenna, ⌘ Special RS-232 Cable for Connecting to Interconnect Box ⌘ Cord grip and Velcro patch ⌘ Installation Guide ⌘ Optional Keypad for EMR³ Register Head
0846000-032	Truck Kit - XTend 900 MHZ – Americas	The Truck Kit without Keypad includes: ⌘ Wireless modem with standard antenna, ⌘ Special RS-232 Cable for Connecting to Interconnect Box ⌘ Cord grip and Velcro patch ⌘ Installation Guide
0846000-033	Optional High Gain Antenna Kit	The Optional High Gain Antenna Kit includes: ⌘ High Gain Antenna ⌘ Mounting bracket ⌘ 20 feet of cable with connectors





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INDIVIDUAL MODEM UNIQUE ADDRESS - IMPORTANT

Each Modem has a Unique Address assigned by Veeder-Root. This number is on the label on the Modem Itself, and on the Modem Box. For each Truck / Interconnect Box, this number is your traceability from the Specific Truck to the Office Software. The Truck Modem number will be entered into the Office Software and identified with the specific Truck Number (or other local identification).

TRUCK KIT MODEM:

XTend 900 MHz, 1 Watt, Serial Approved for use <u>in the Americas</u>	Unique Address Assigned By Veeder-Root Example of Label on Side of Modem
	MODEM NO.: 10126 

FOR XTEND 900 MHz SERIAL MODEMS

TRUCK MODEM MOUNTING AND CONNECTION:

1. The dip switches on the XTend modem should be set to: 1=ON 2=OFF 3=OFF 4=OFF 5=ON 6=ON



2. Screw the antenna into the modem and hand tighten.





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3. Mount the modem to the back window of the vehicle or other surface of the vehicle using the Velcro patch provided, or the modem can be attached with screws or bolts using the tabs on the modem.
4. Add the screw clips and screws to the head of the RS-232 cable, plug into the connector, and tighten the screws to secure the connector the modem.



WIRING THE SPECIAL RS-232 CABLE INTO THE IB – TRUCK KIT ONLY – XTEND MODEM:

Power should be off to the Interconnect Box before connections are made.

The special RS-232 cable included with the truck kit provides the communication to the wireless modem and also the modem power. Modem power is provided from the V+ power coming into the Interconnect Box. Normally the V+ wire is Red.

Install the cord grip in the interconnect box and connect the cable wires by color according the pictures. The connectors in the IB are only designed for up to 18 gage wire, so splitting the V+ into the IB may be necessary. You can shorten the cable if you like.

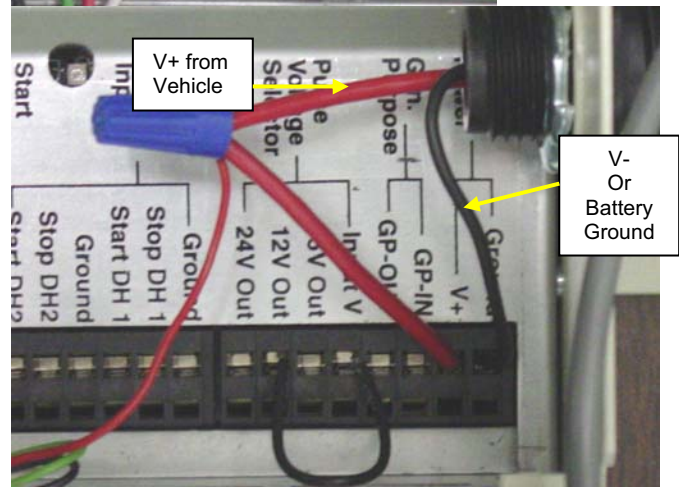
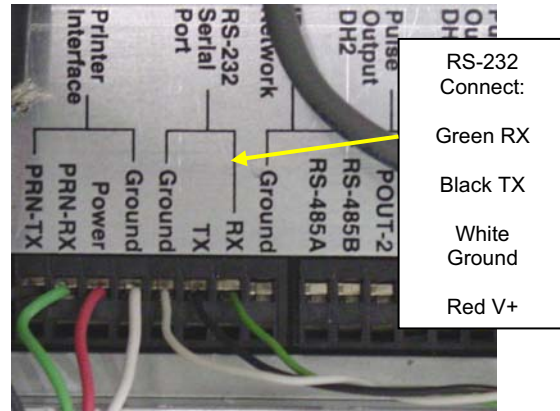
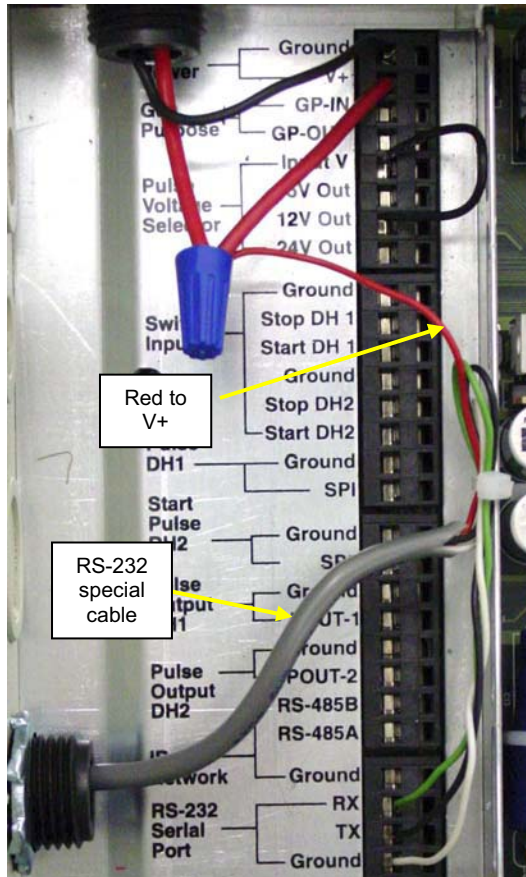




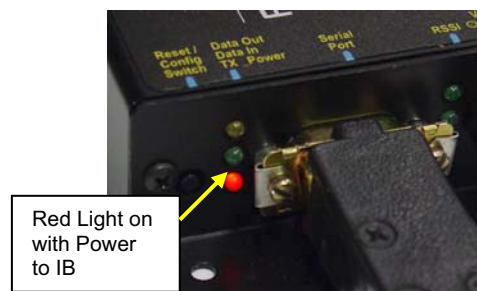
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For XTend Modem: Green is RX, Black is TX, White is Ground, Red is V+



Upon completion of the wiring and power to the IB is turned on, the red light on the modem next to the RS-232 connector will be on.



Before leaving the vehicle, go to the display, and make sure the PORT 2 ASSIGN under SETUP, SYSTEM ADDRESS is set to OBC.

- € Push the MODE button to get to SETUP, Arrow Up to SYSTEM ADDRESS, NEXT to IB ADDRESS, Arrow up to PORT 2 ASSIGN, NEXT, if not OBC the Arrow to OBC and ENTER, ENTER, and ENTER. You can then push the MODE button to get back to Volume Mode.





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FOR XTEND 900 MHZ OFFICE USB MODEMS

XTEND OFFICE KIT INSTALLATION:



1. Screw the antenna into the modem and hand tighten. The antenna should point upwards. If using the High Gain Antenna, it connects to the same location.
2. Insert the power supply cable connector into the modem completely, and attach the USB CABLE



3. Plug the power supply into a normal 110 volt outlet, or with the proper non-Americas Plug. The three green signal lights on the modem will be lit.
4. The modem can sit on a desk, but for best results it should be placed as high as possible. Or, the modem can be attached with Velcro, or screws or bolts using the tabs on the modem to a surface. A high gain antenna will enhance the modem's capability.
5. Attach the other end of the USB Cable to a USB port on your computer.





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INSTALLING USB MODEM DRIVERS

The Modem is a “plug-and-play” device that should automatically be detected by your PC.

“Found New Hardware Wizard” dialog box appears

1. Verify the Program CD is inserted into the CD Drive.
2. Select the ‘Install from specific list or location (Advanced)’ option; then select the ‘Next’ button.
3. Select the "Search for best driver in these locations" option and check the ‘Search removable media (CD-ROM...)’ box.
4. Select the ‘Next’ button.

Hardware Installation "Windows Logo Testing" alert box appears

5. Select the ‘Continue Anyway’ button.
6. Select the ‘Finish’ button.
7. Repeat steps 1 through 5 to install the second driver.
8. (Re-boot computer if prompted to do so.)

Once the Modem drivers are successfully loaded the Red LED on the Modem will be lit indicating a successful USB Link.

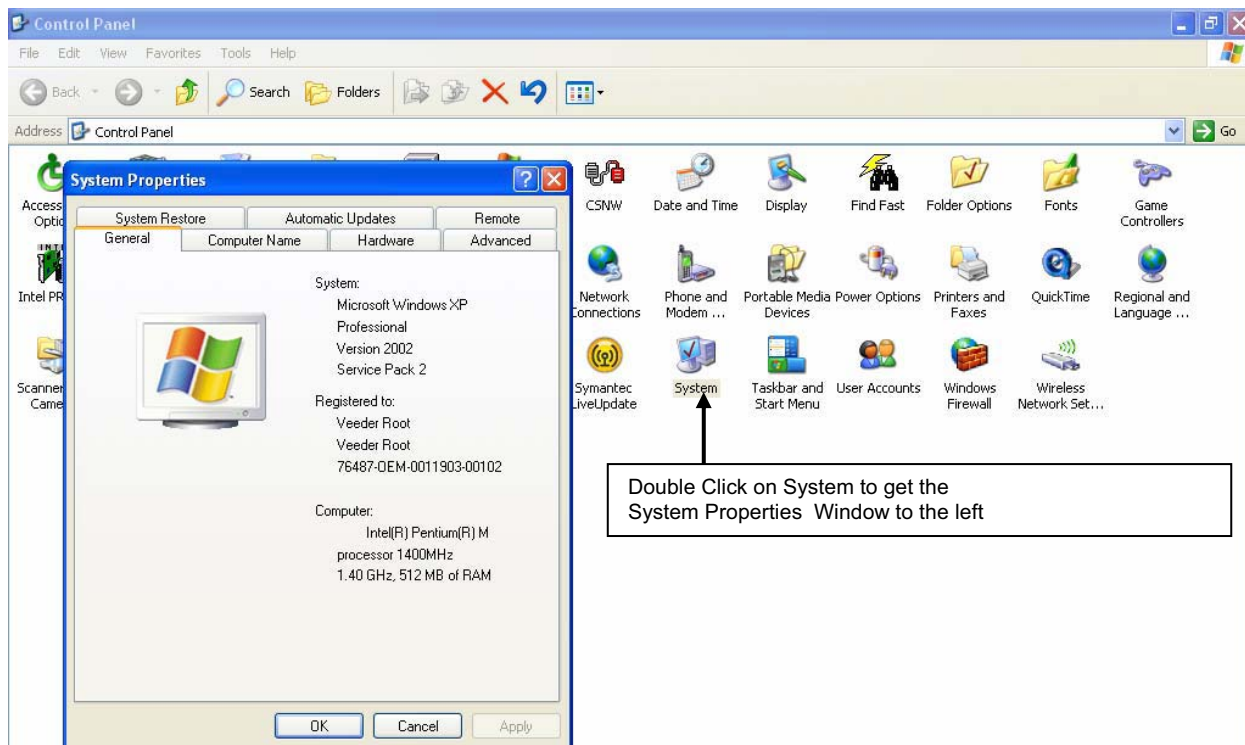
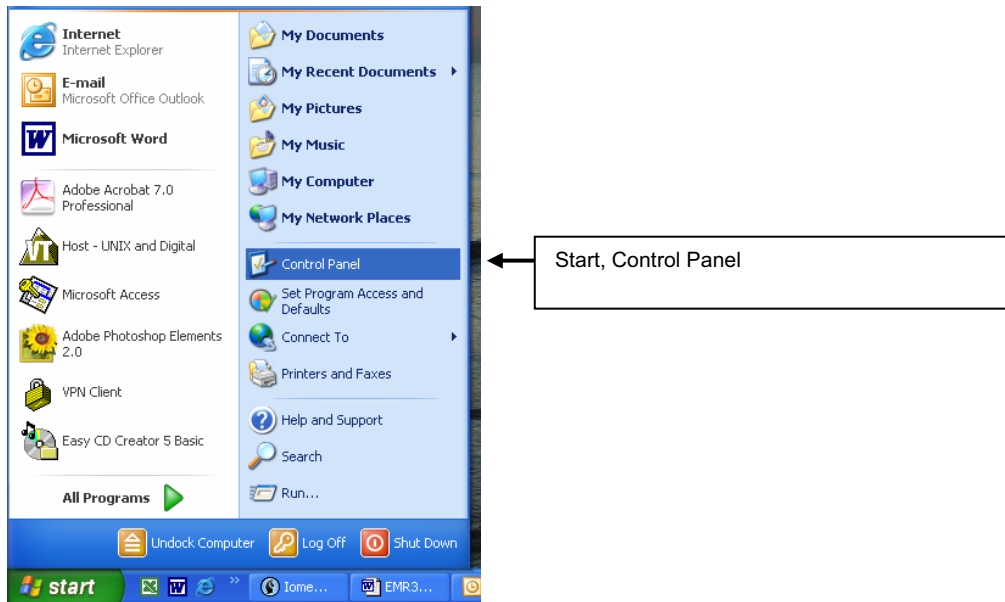




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Finding the communications port for using the USB Modem with the DataLink Program

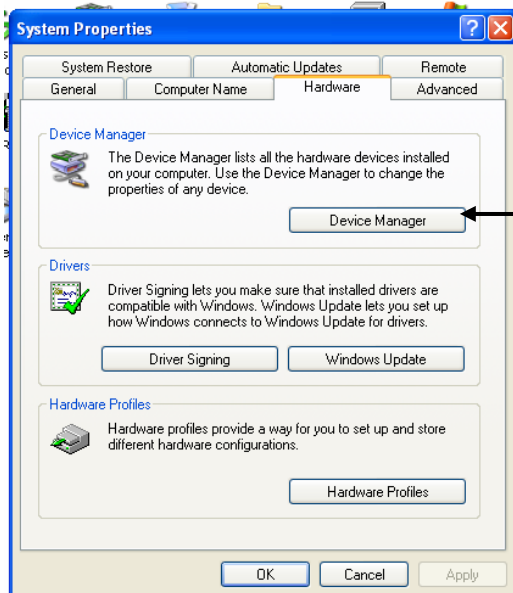




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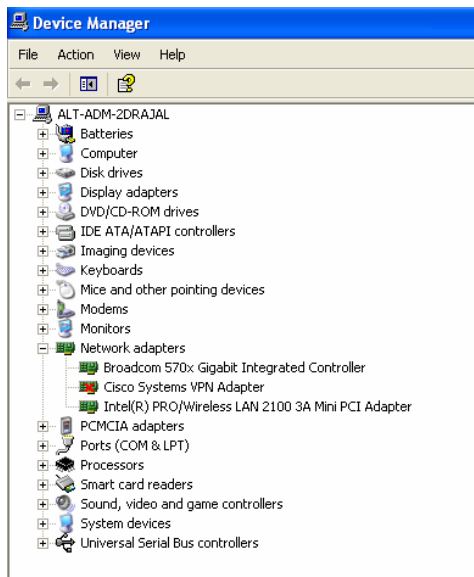


Click on the Hardware Tab



Click on Device Manager

Device Manager Screen:

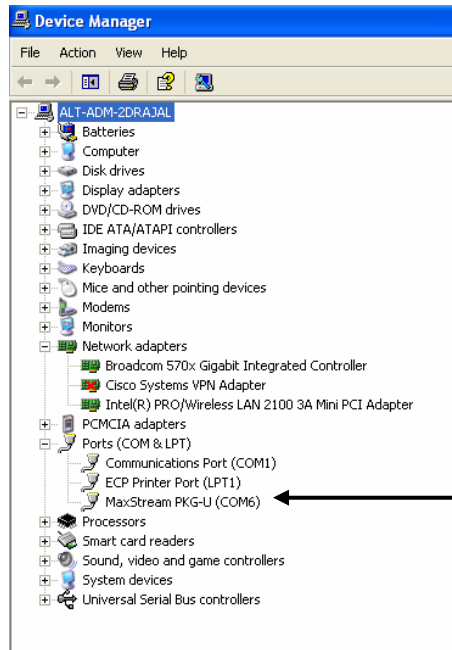




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Click on the “+” of Ports and you will find the MaxStream USB Modem Communication Port.



When you click on the “+” of Ports, you will find the MaxStream PKG-U Modem and the computer assigned Com port - In this example “6”.

This Communication Port Number will be entered on the Configuration page of the DataLink program.

Note: If there is no MaxStream Port, then the Drivers for the MaxStream Modem have not been loaded. Plug the MaxStream USB Modem into your computer and follow the Plug-and-Play instructions, or got to Add Hardware on the Control Panel.

For use with the DataLink Software, refer to the Quick Help Guide 577013-860.

High Gain Antenna - Kit 0846000-033

If a high gain antenna is used, it should be located as high as possible. Instead of additional co-axial cable being added to locate the antenna, a longer USB cable can be added between the computer and the modem.





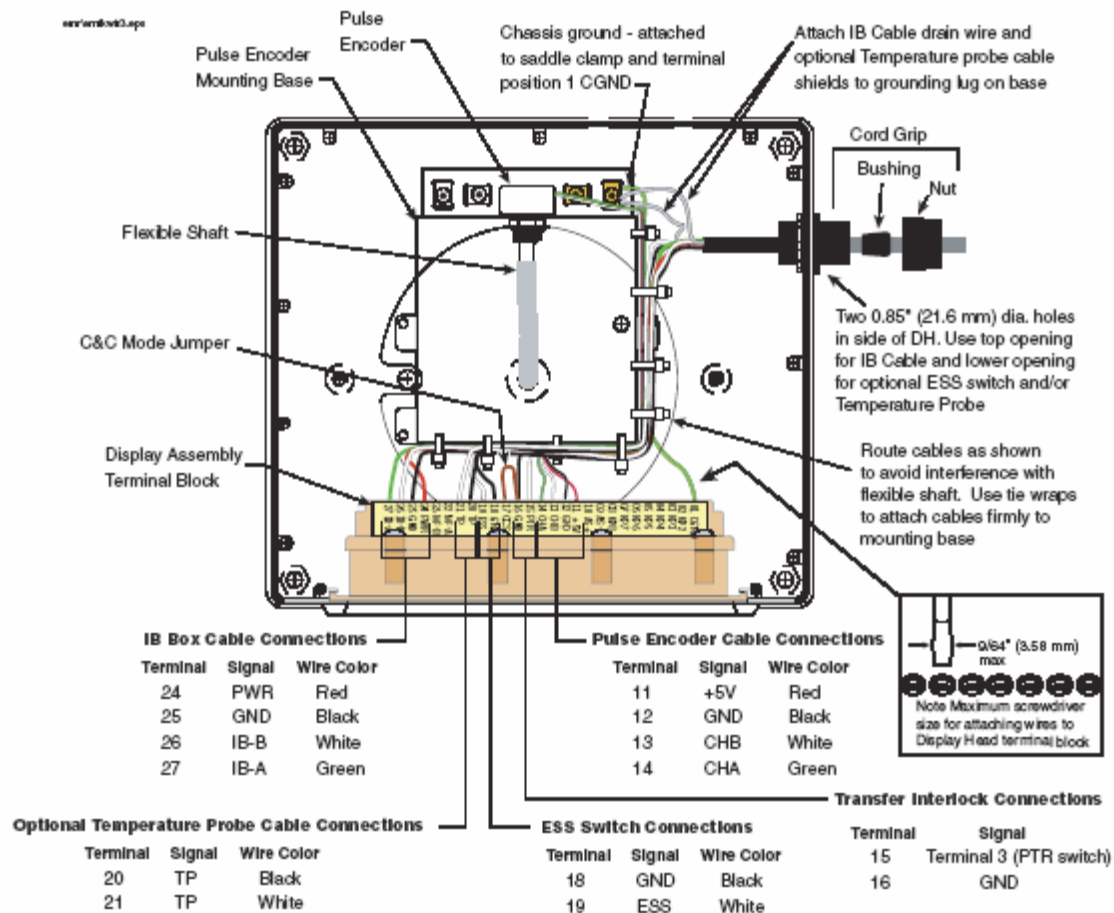
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OPTIONAL KEYPAD INSTALLATION:

In order to install the optional Keypad, the Display will need to be disconnected from the wiring and gently removed from the housing.

1. Remove the cover from the hole in the right side of the display head housing.
2. Put the rubber gasket over the threads on the keypad outlet.
3. Align the gasket and keypad to the holes in the housing and with a T-15 Torx, secure the keypad to the housing with the screws provided.
4. Insert the display in the housing, gently pushing down to seat completely.
5. Reconnect the wires to the display per the following wiring information:





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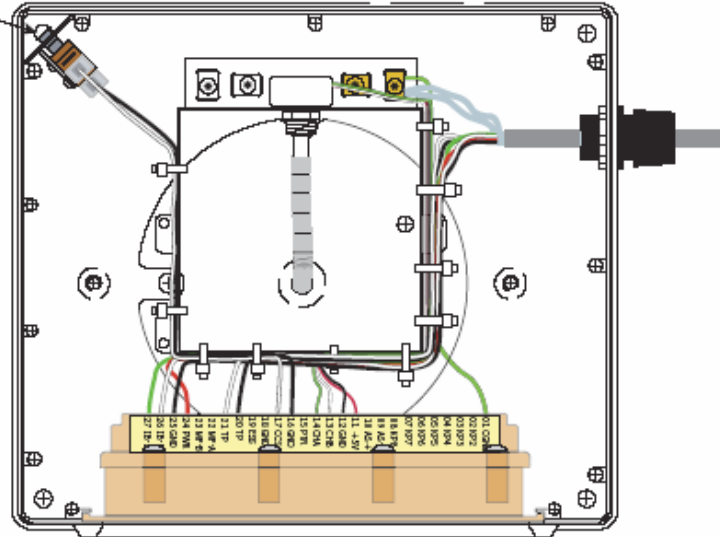
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Corner Mounted C&C Switch

Removal of corner bolt releases actuator lever of C&C switch allowing entry into C&C Mode



cm/emr3csw.aps

Figure 17. C&C Mode Switch Configuration

6. Connect the keypad wires per this diagram:

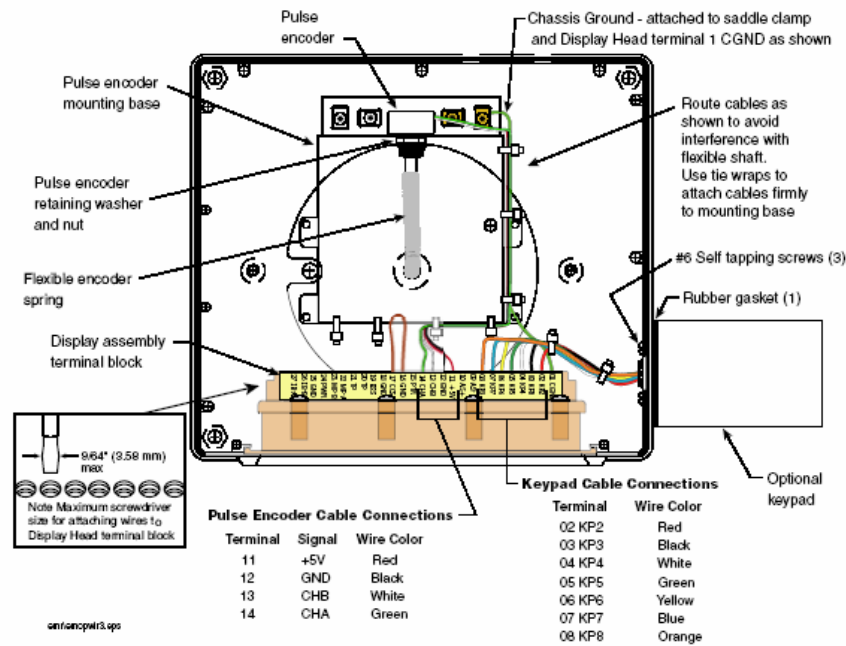


Figure 18. Pulse Encoder and Keypad Installations





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Warranty of Modems by MaxStream :

Extracted From MaxStream XTend-PKG-R™ RF Modem Product Manual v2.x4x

RF Modems from MaxStream, Inc. (the "Product") are warranted against defects in materials and workmanship under normal use, for a period of 1-year from the date of purchase. In the event of a product failure due to materials or workmanship, MaxStream will repair or replace the defective product. For warranty service, return the defective product to MaxStream, shipping prepaid, for prompt repair or replacement.

The foregoing sets forth the full extent of MaxStream's warranties regarding the Product. Repair or replacement at MaxStream's option is the exclusive remedy. THIS WARRANTY IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, AND MAXSTREAM SPECIFICALLY DISCLAIMS ALL WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL MAXSTREAM, ITS SUPPLIERS OR LICENSORS BE LIABLE FOR DAMAGES IN EXCESS OF THE PURCHASE PRICE OF THE PRODUCT, FOR ANY LOSS OF USE, LOSS OF TIME, INCONVENIENCE, COMMERCIAL LOSS, LOST PROFITS OR SAVINGS, OR OTHER INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PRODUCT, TO THE FULL EXTENT SUCH MAY BE DISCLAIMED BY LAW. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES. THEREFOR, THE FOREGOING EXCLUSIONS MAY NOT APPLY IN ALL CASES. This warranty provides specific legal rights. Other rights which vary from state to state may also apply.

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MODEM CERTIFICATIONS:

Extracted From MaxStream XTend-PKG-R™ RF Modem Product Manual v2.x4x and 9XTend-PKG RF Modems Datasheet 2005.

Certifications:

FCC Part 15.247	ID: OUR-9XTEND
Industry Canada	ID: 4214A-9XTEND

FCC Certification

The XTend RF Modem complies with Part 15 of the FCC Rules. In order to inherit MaxStream's FCC Certification, compliance requires the following be stated on the device and within its operation manual:

FCC ID: OUR-9XTEND This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.





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NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: • Reorient or relocate the receiving antenna. • Increase the separation between the equipment and receiving modem. • Connect the equipment into an outlet on a circuit different from that to which the receiving modem is connected. • Consult the dealer or an experienced radio/TV technician for help.

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Veeder-Root makes no warranty of any kind with regard to this publication, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose.

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DAMAGE CLAIMS

1. Thoroughly examine all components and units as soon as they are received. If damaged, write a complete and detailed description of the damage on the face of the freight bill. The carrier's agent *must* verify the inspection and sign the description.
2. Immediately notify the delivering carrier of damage or loss. This notification may be given either in person or by telephone. Written confirmation must be mailed within 48 hours. Railroads and motor carriers are reluctant to make adjustments for damaged merchandise unless inspected and reported promptly.
3. Risk of loss, or damage to merchandise remains with the buyer. It is the buyer's responsibility to file a claim with the carrier involved.

RETURN SHIPPING

For the parts return procedure, please follow the appropriate instructions in the "General Returned Goods Policy" and "Parts Return" section of the Veeder-Root EMR³ price list.

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